

4304562 (EP08.46).High fetoplacental weight ratio in pregnancies with fetal growth restriction followed by pre-eclampsia

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Introduction

- Preeclampsia(PE) is often complicated with Fetal growth restriction(FGR).
- The initial findings-whether FGR, hypertension, or simultaneous onset may affect clinical outcomes.
- We compared the clinical characteristics among different onset patterns.

Methods

- Study design : Retrospective study
- Study period : 2019-2024
- Subjects : Singleton pregnancies complicated with FGR and PE

Results

- The gestational age at delivery and birth weight were similar in all groups.
- In the hypertension-first group, proteinuria was more frequent.
- FGR diagnosis delivery interval was longer in the FGR preceded group.

- Fetoplacental weight ratio was higher than the other groups.

Discussion

- Fetoplacental weight ratio is a parameter of placental efficiency.
- Fetoplacental weight ratio is usually low in cases with FGR or PE alone.
- Fetoplacental weight ratio was high when FGR preceded PE.
- This may suggest a different placental pathology based on the onset pattern.

Conclusion

- The pattern of onset affects placental function and perinatal outcomes.
- Further studies needed to optimize management.

	F (n=22)	H (n=10)	S(n=8)	P-value
Maternal age, years	35 (25–45)	36 (28–44)	34 (23–45)	n.s.
GA at diagnosis of FGR, weeks	29.4 (22.6–36.2)	28.7 (19.8–37.6)	32.6 (23.4–41.8)	n.s.
GA at diagnosis of PE, weeks	33.5 (27.2–39.8)	27.6 (18.5–36.2)	32.6 (23.4–41.8)	n.s.
Delivery, weeks	36.1 (31.8–40.4)	33.6 (26.8–40.4)	33.1 (25.3–40.9)	n.s.
FGR diagnosis-delivery interval, days	51(4-127)	19(3-66)	5(0-25)	<0.01
Placental weight, g	310 (185–435)	260 (42–478)	400 (304–496)	n.s.
Birth weight, g	1776 (989–2563)	1340 (135–2545)	1459 (530–2388)	n.s.
Proteinuria	11 (50.0%)	9 (90.0%)	7 (87.5%)	0.033
Fetoplacental weight ratio	5.17 (3.95–6.39)	4.44 (3.39–5.49)	4.10 (2.59–5.61)	0.015

Table 1. Maternal and neonatal outcomes

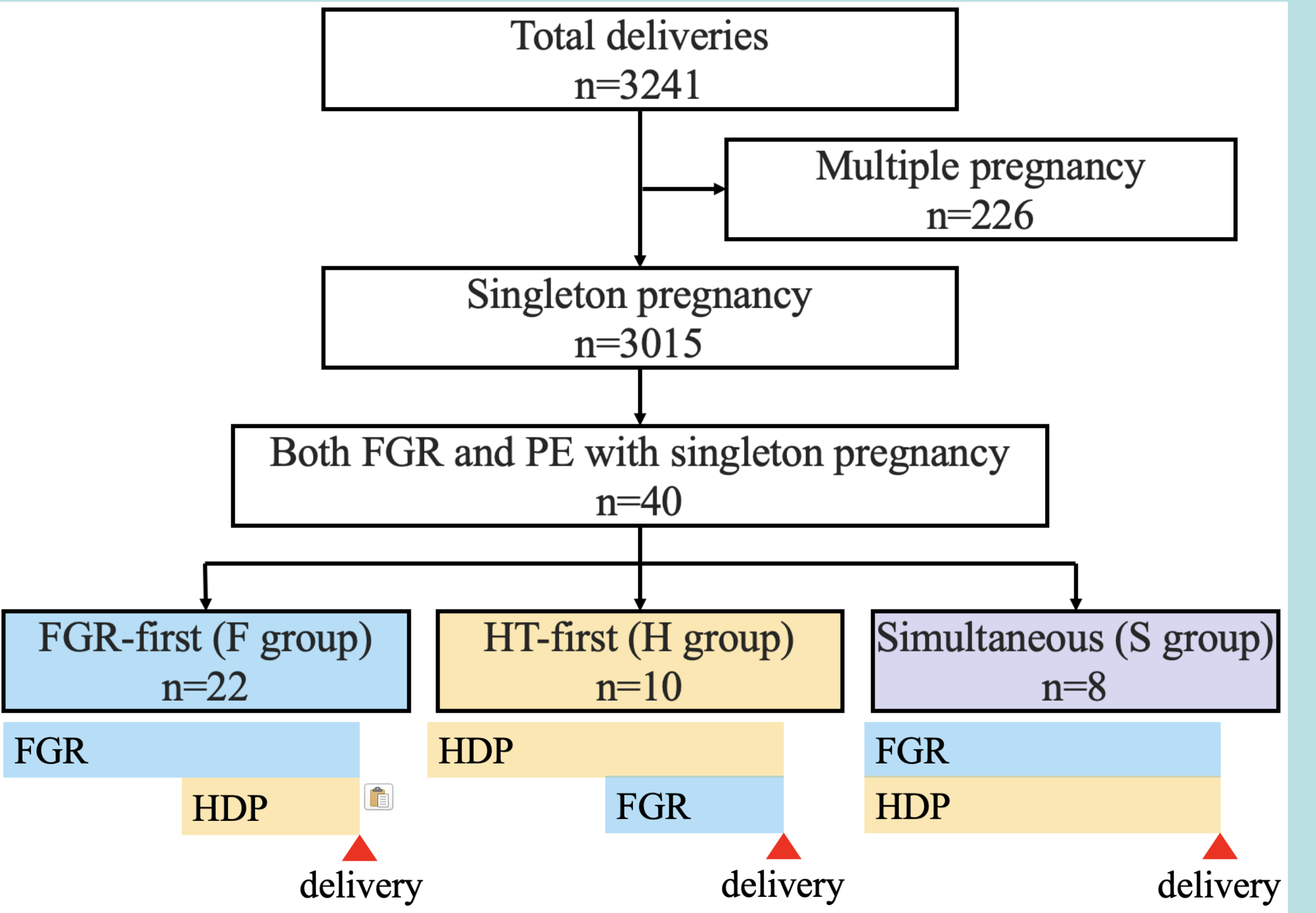


Figure 1. flowchart of the study protocol

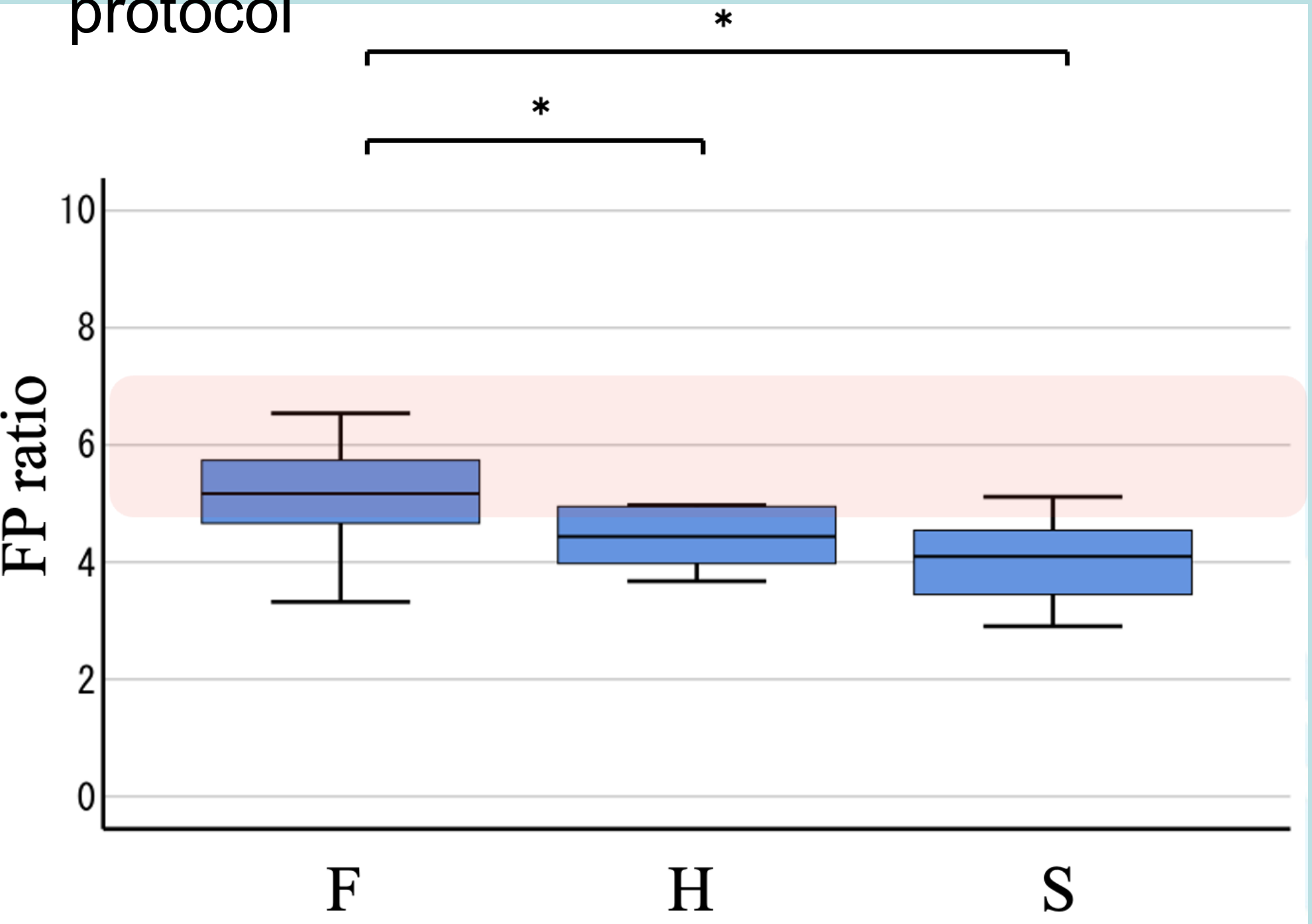
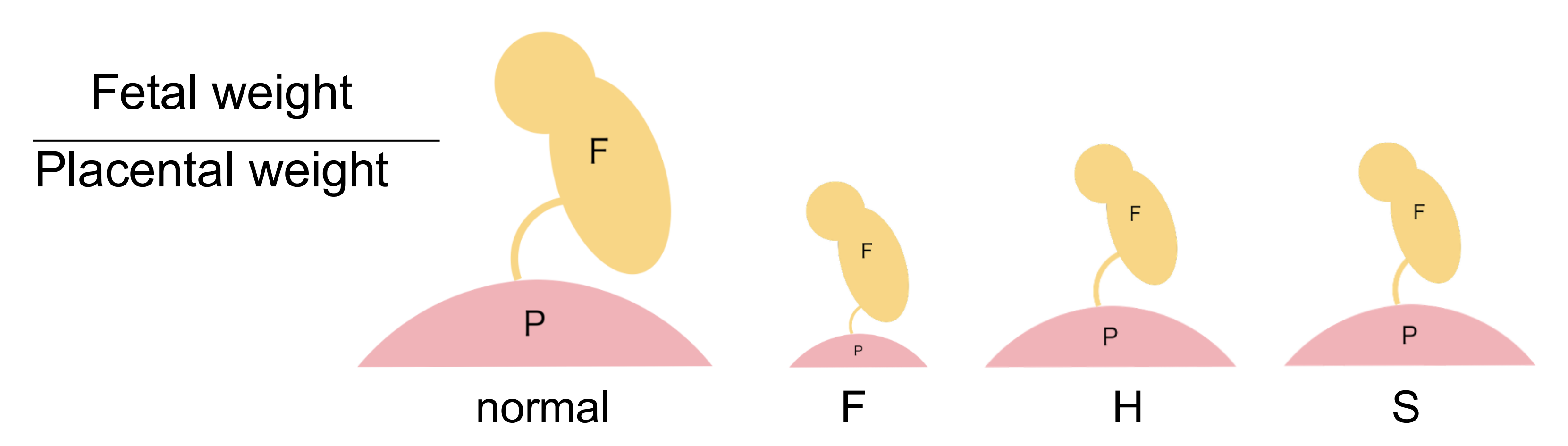


Figure 2. boxplot of FP ratio

	F	H	S
FGR diagnosis-delivery interval	long	-	-
Fetoplacental weight ratio	→	↓	↓

Table 2. Summary of results



Schema 1. Conceptual illustration of fetoplacental weight